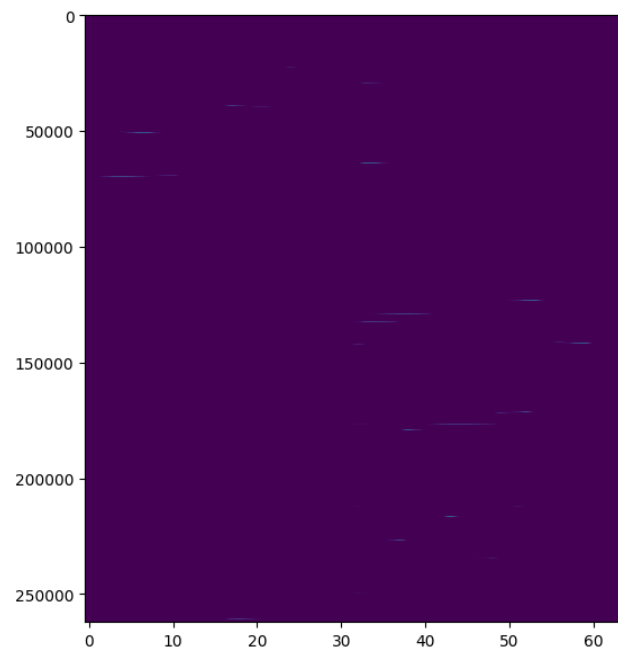
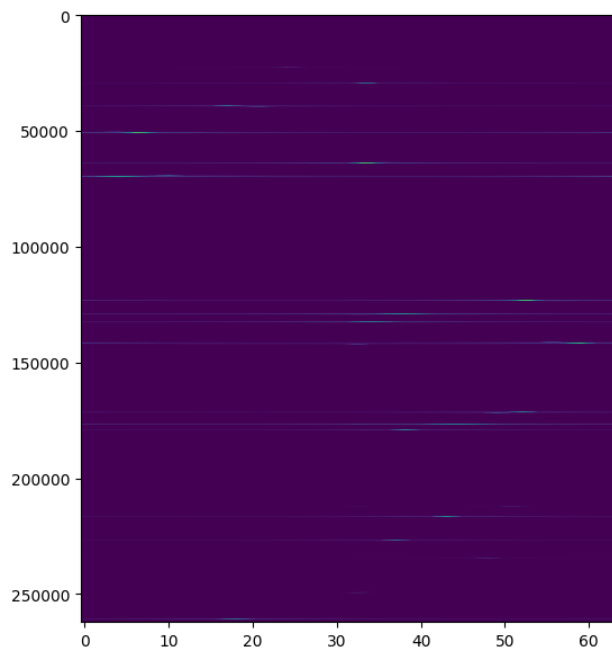
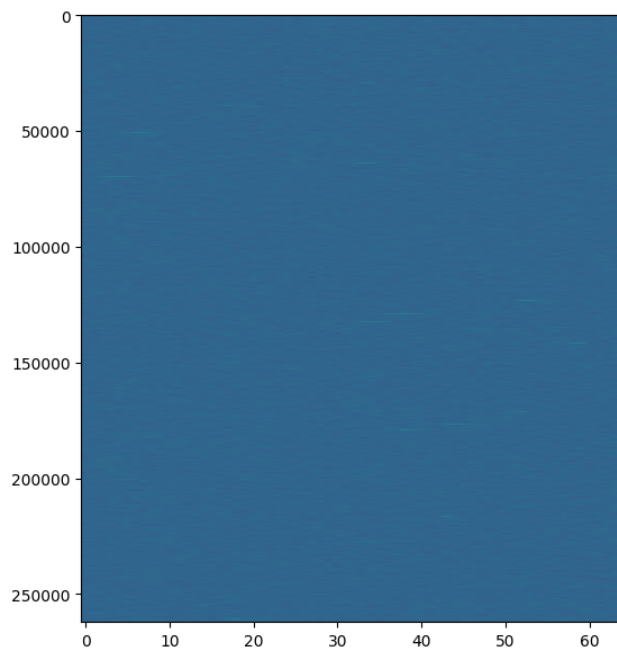


# AVANTIX

## Avancement Simulateur IQ

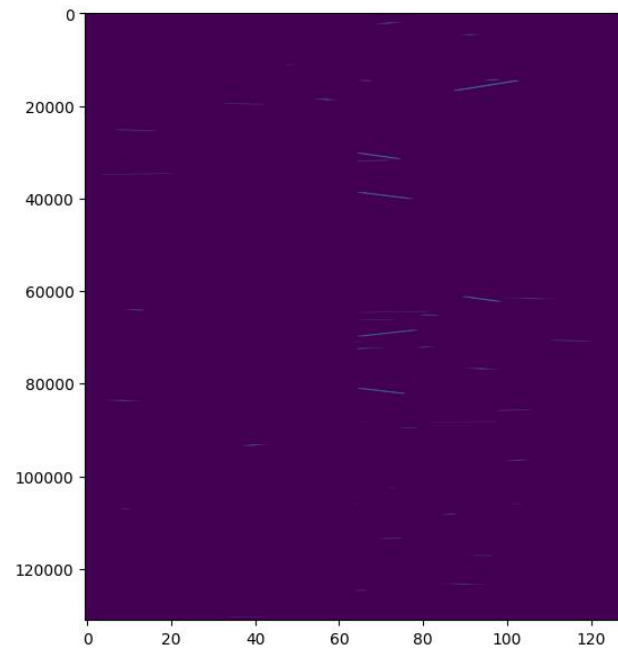
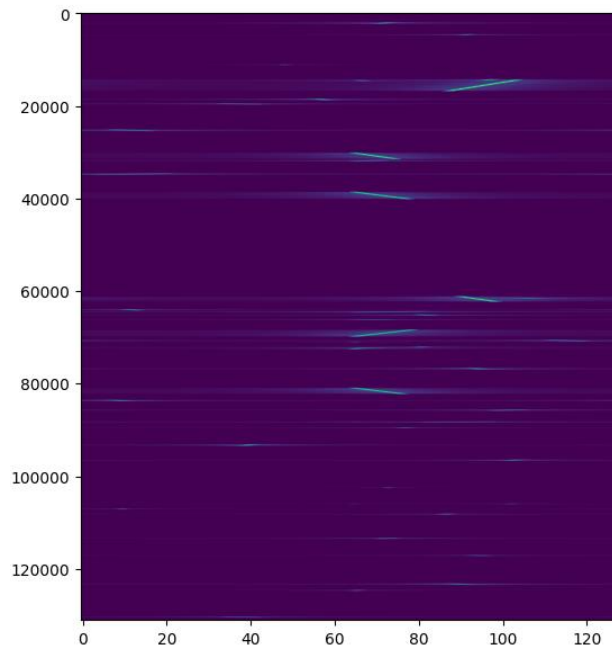
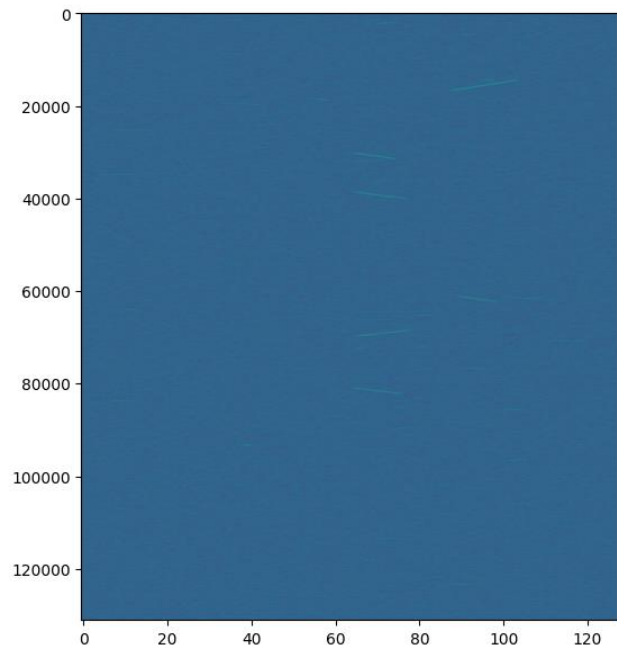
# BT600

nperseg=64



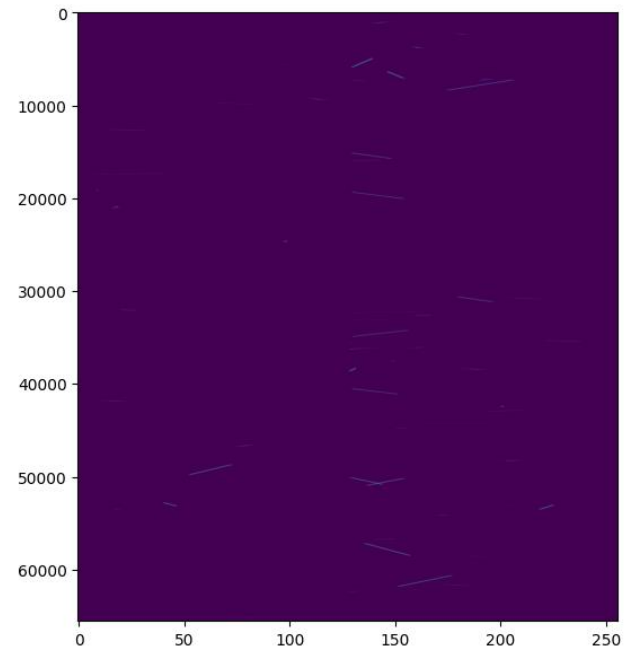
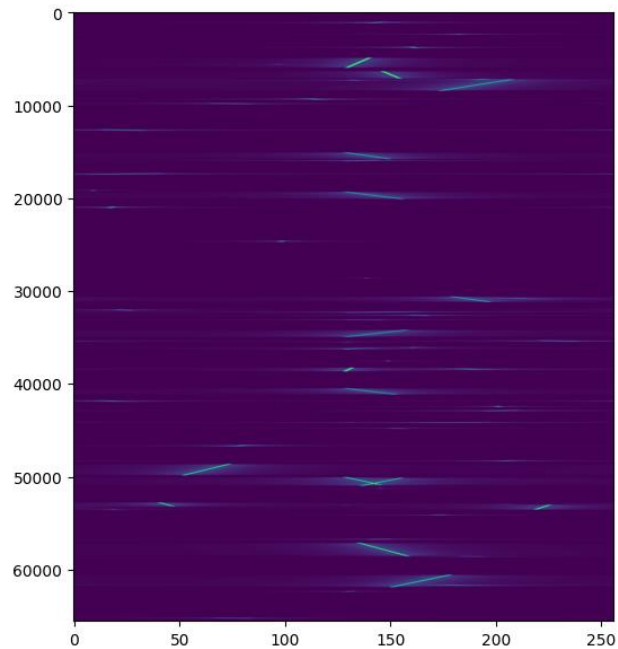
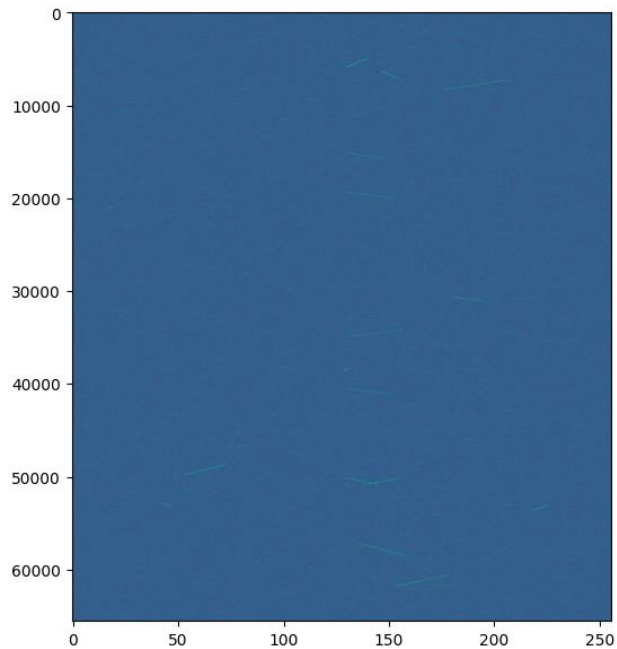
# BT600

nperseg=128



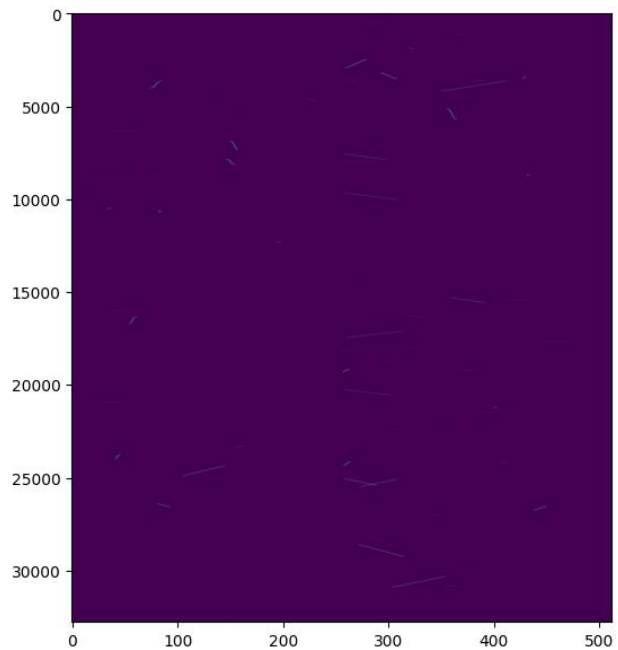
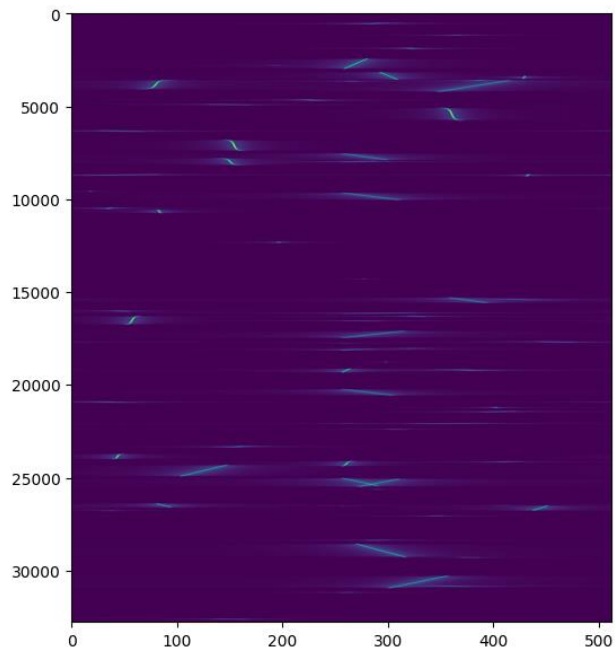
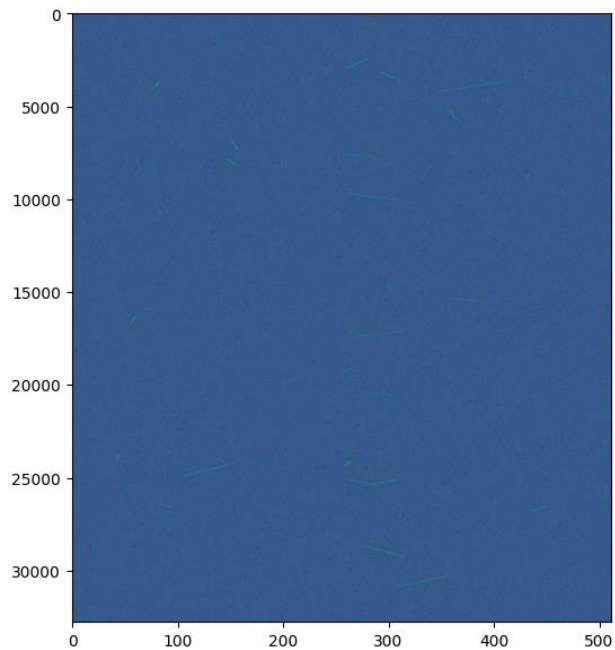
# BT600

nperseg=256



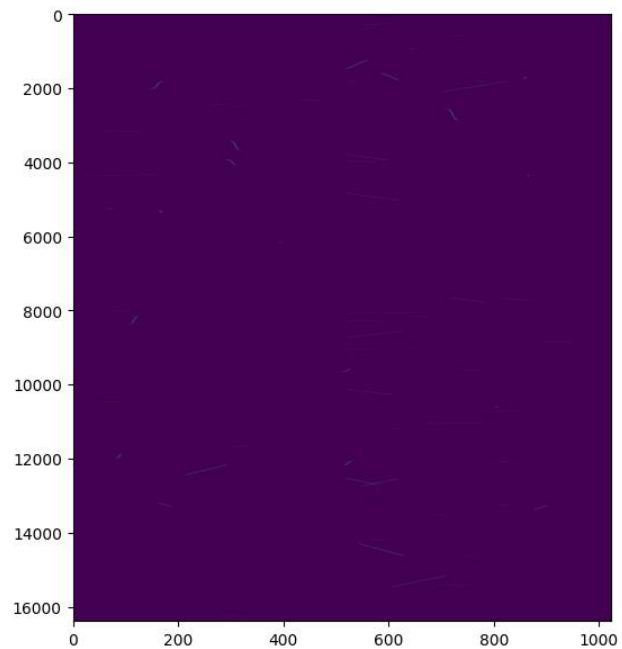
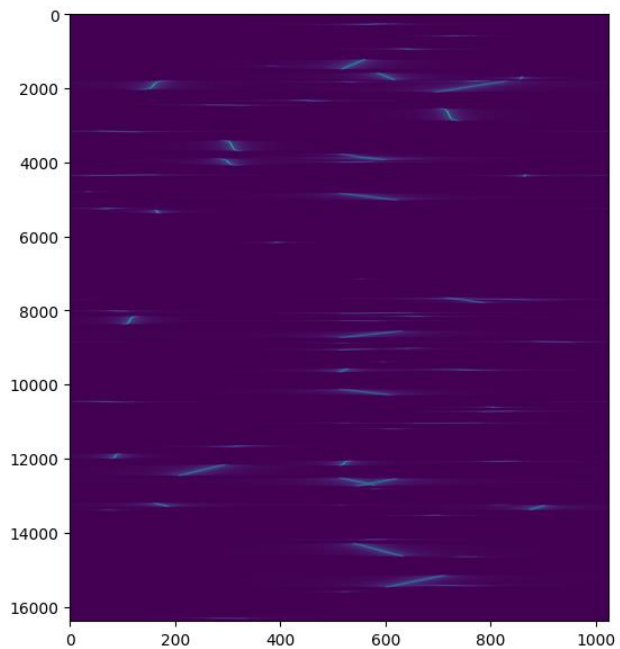
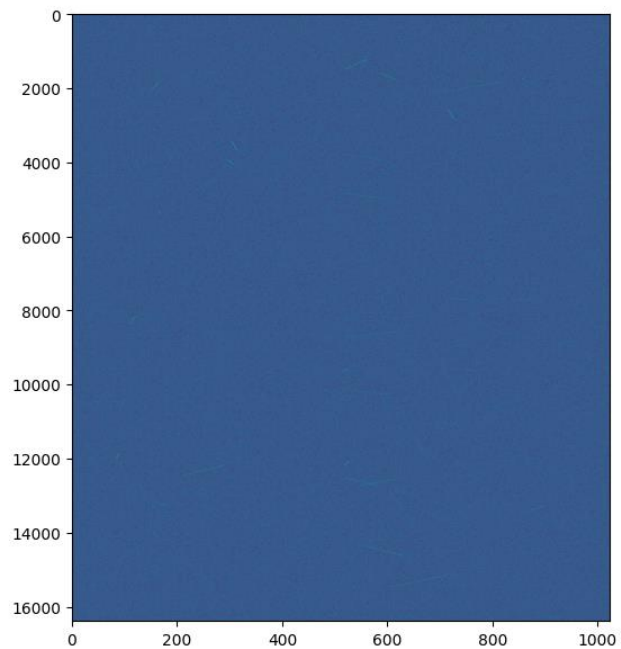
# BT600

nperseg=512



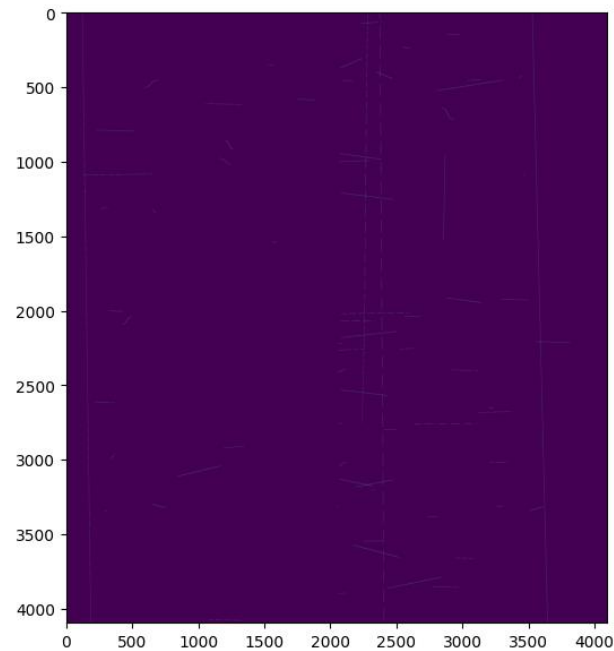
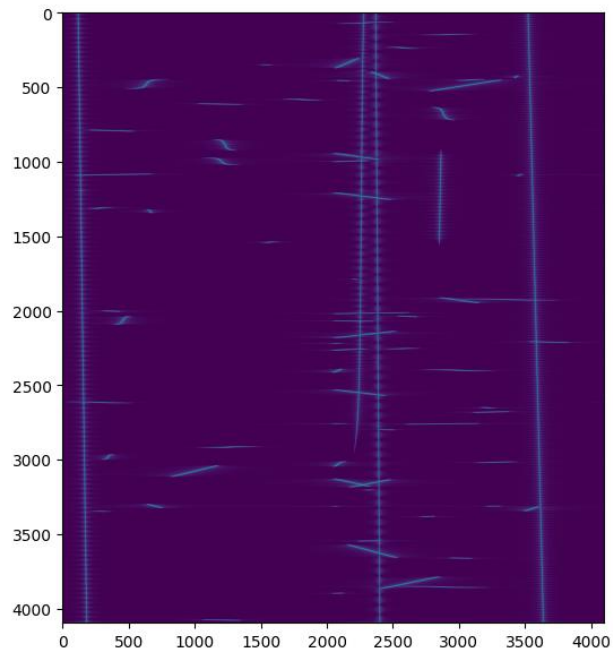
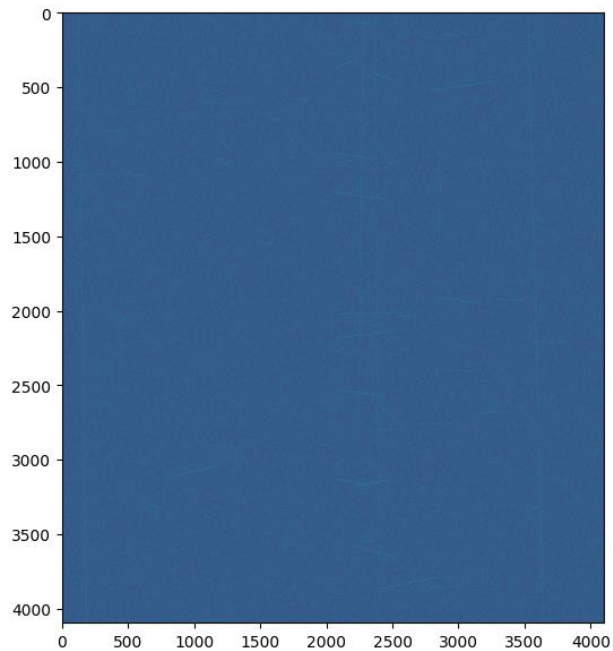
# BT600

npersg=1024



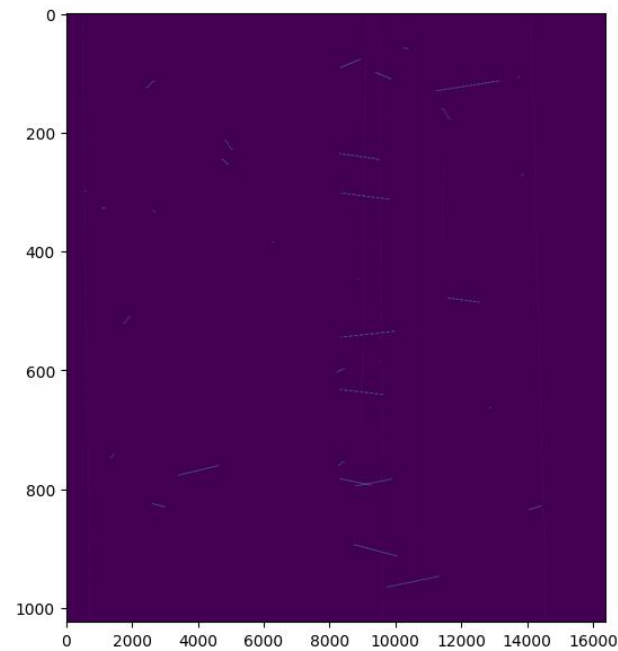
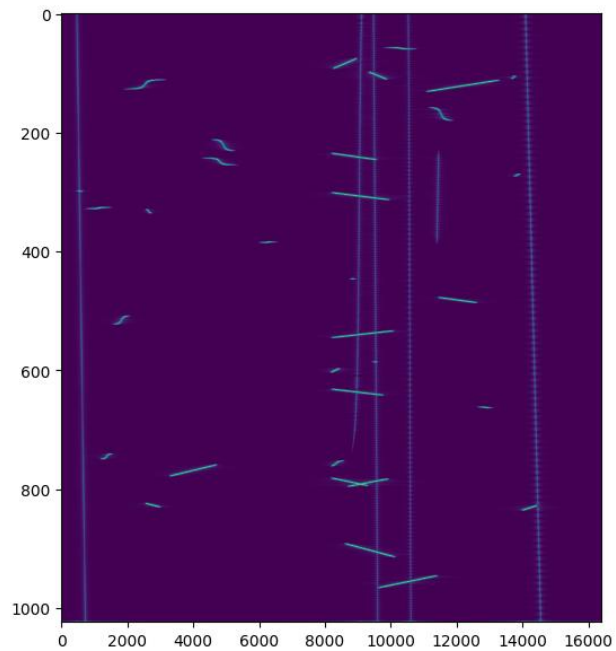
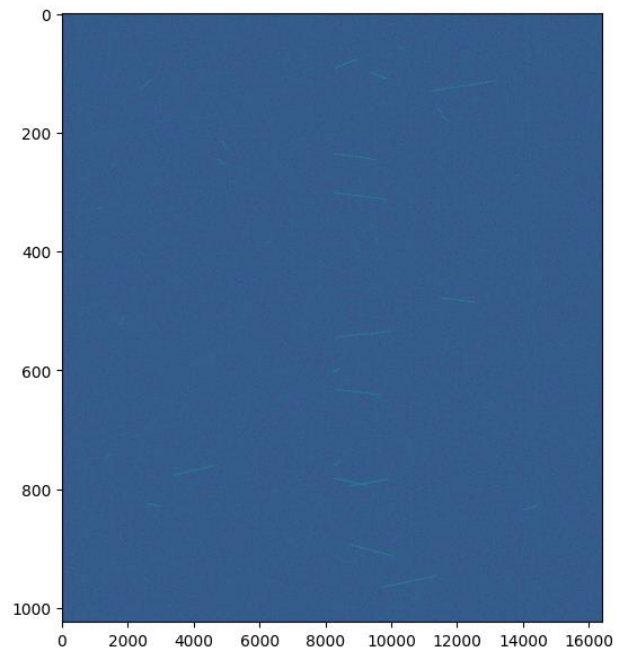
# BT600

nperseg=4096



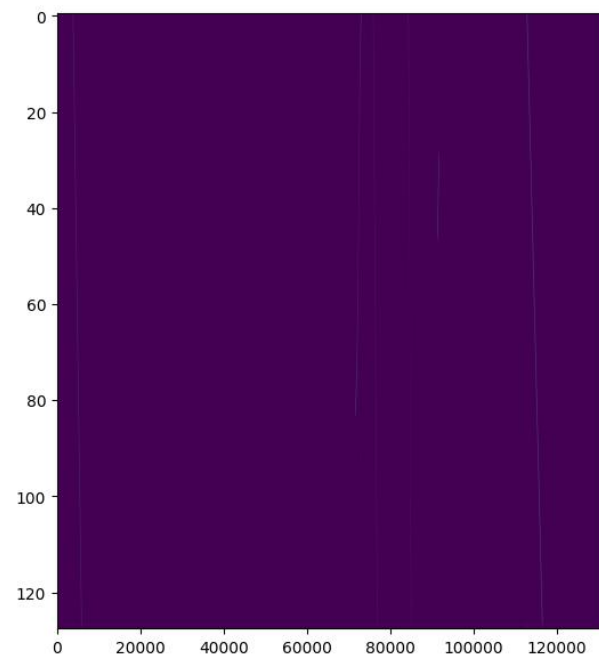
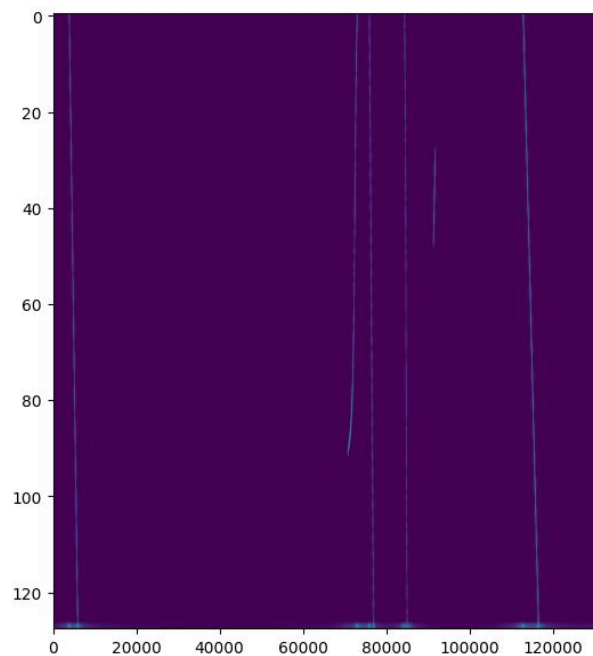
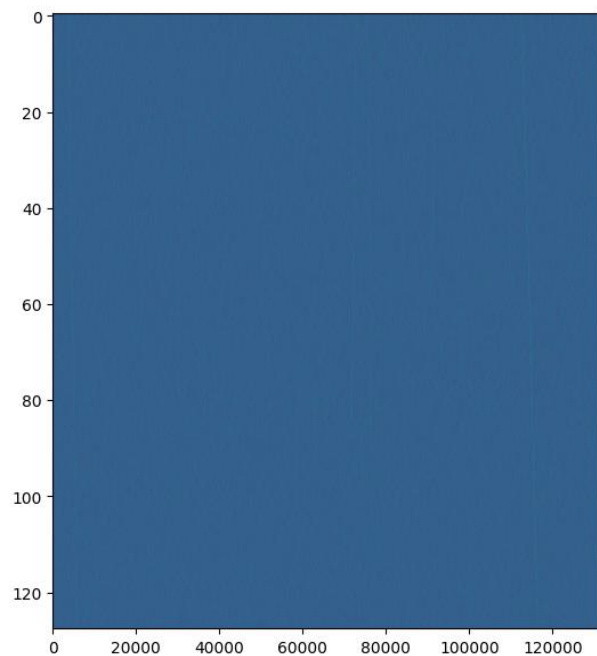
# BT600

nperseg=16384



# BT600

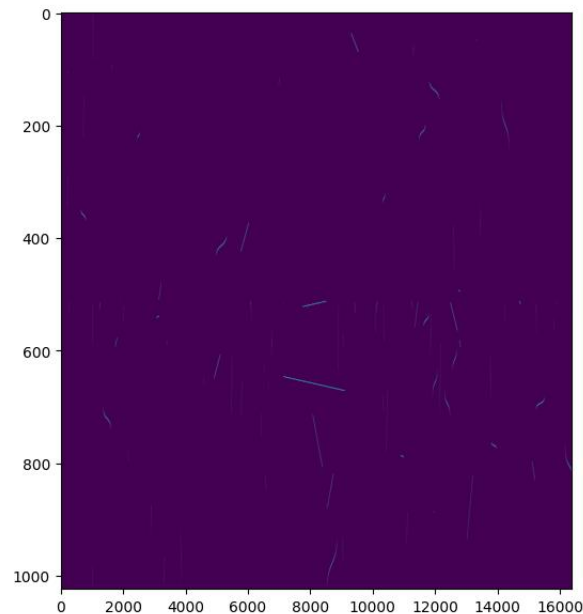
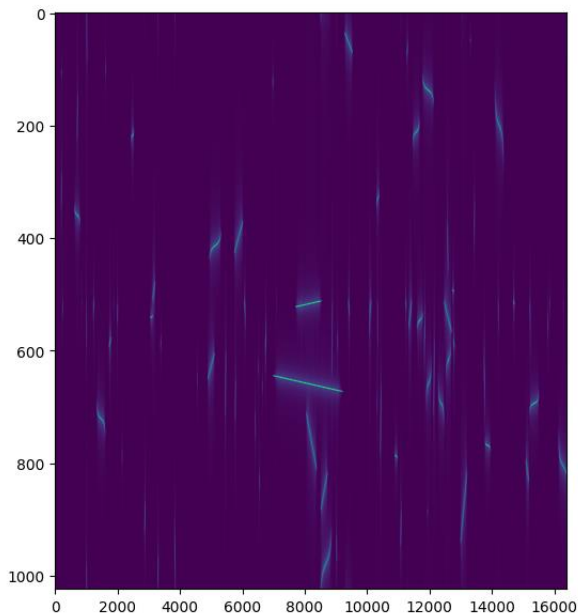
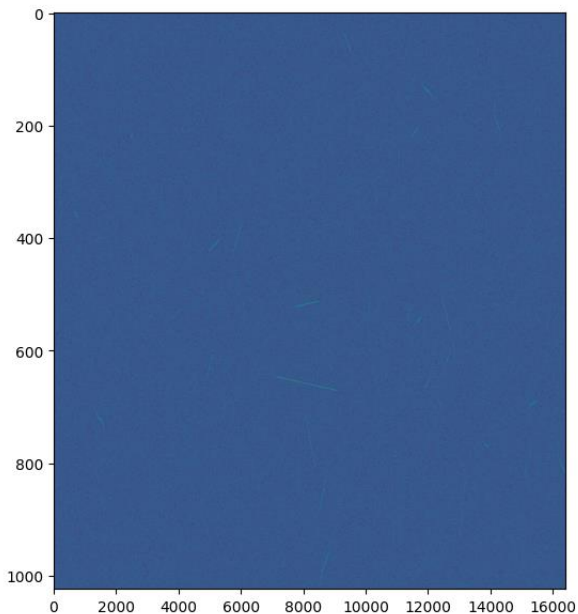
nperseg=131072



# Tentative overfit sur 1 image

La seule image d'apprentissage sur laquelle je cherche à surapprendre :

sxxs\_targeted\_snr=15dB\_214.pt



# Tentative overfit sur 1 image 4 convs

## **Modèle à overfit :**

*4 couches de convolutions*

*16 kernels chacun de taille 3x3*

*Fct de coût DiceLoss*

***Seuil de binarisation @ FP  $\leq$  6 pour 10M***

Epoch 1000/100, Train Loss: 0.0503, Val Loss: 0.0502, PR AUC: 96.5%

# Tentative overfit sur 1 image 1 conv

## **Modèle à overfit :**

*1 couches de convolution*

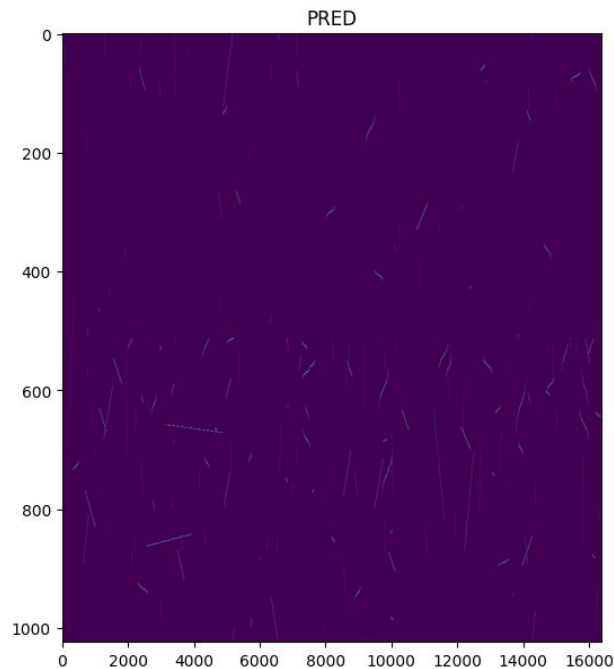
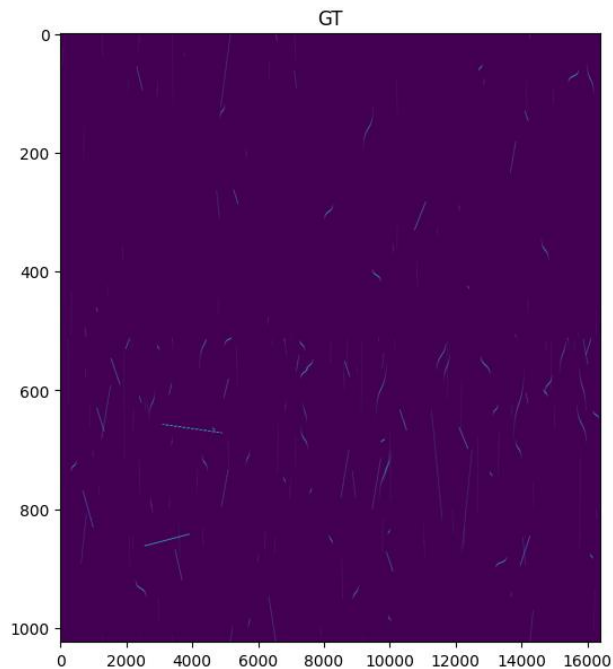
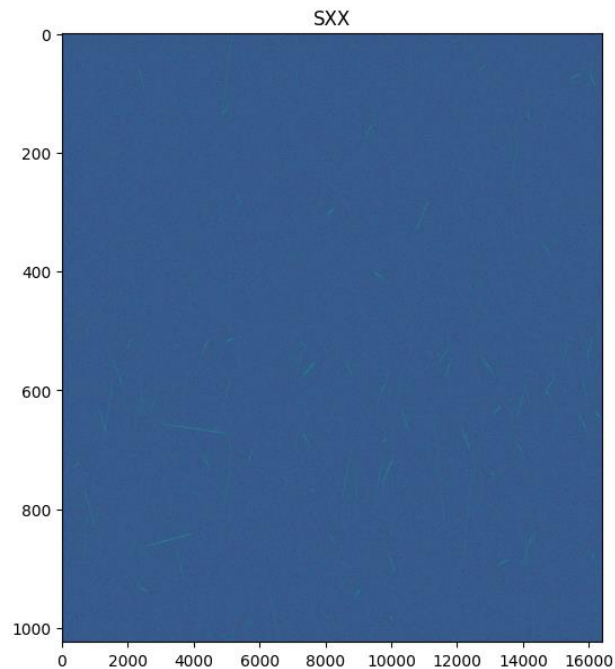
*16 kernels chacun de taille 3x3*

*Fct de coût DiceLoss*

***Seuil de binarisation @ FP  $\leq 6$  pour 10M***

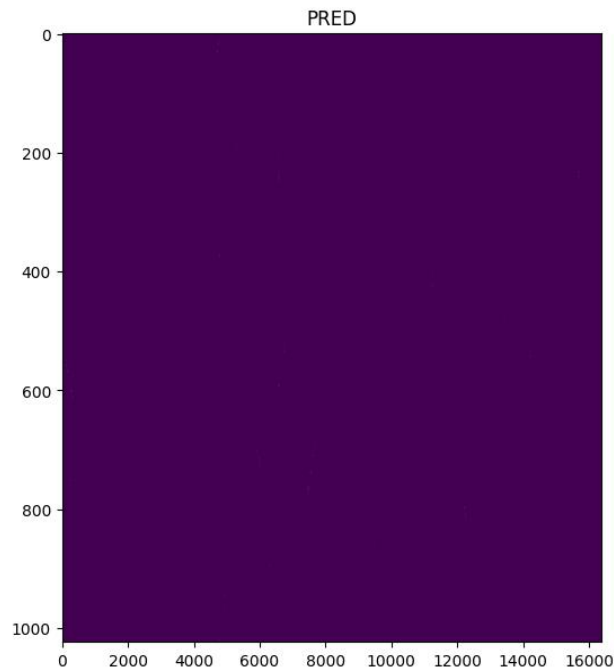
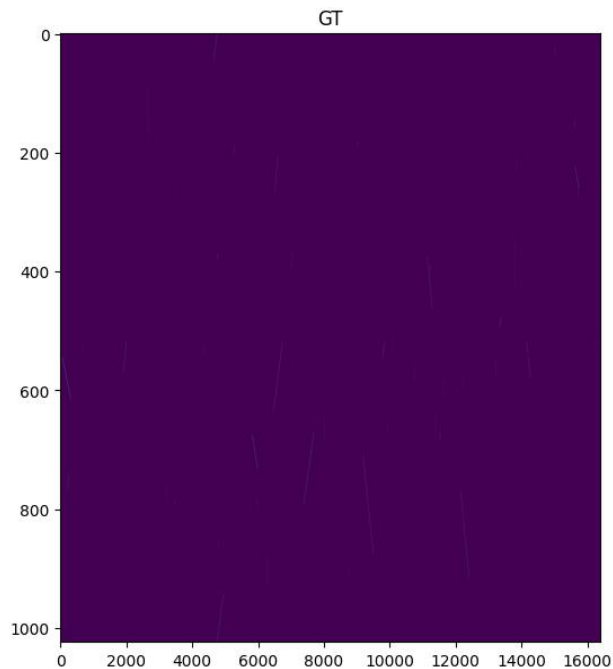
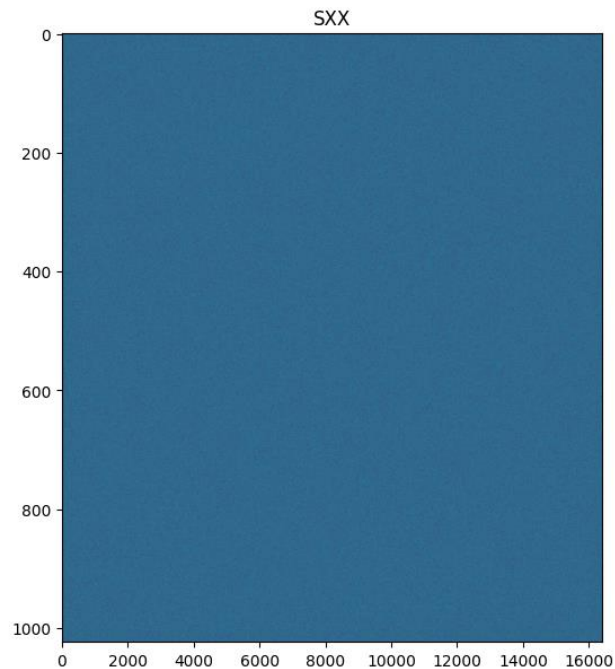
# Résultat overfit sur 1 image sur test à 15dB

sxxs\_targeted\_snr=15dB\_61.pt



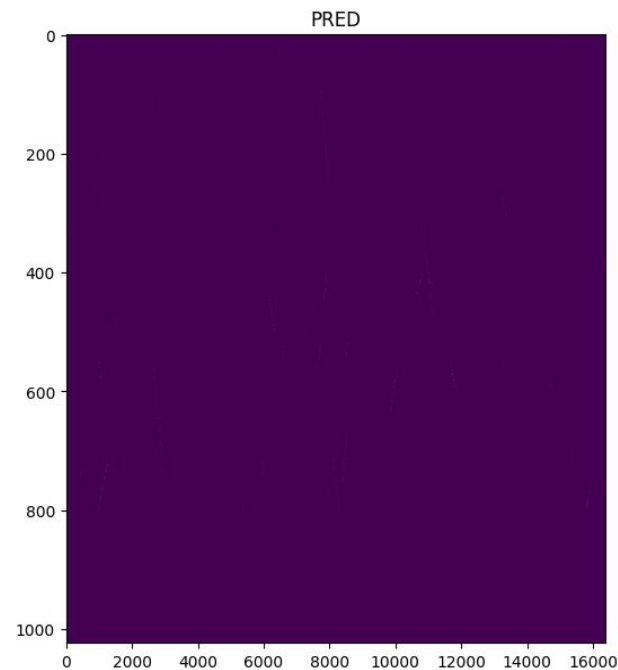
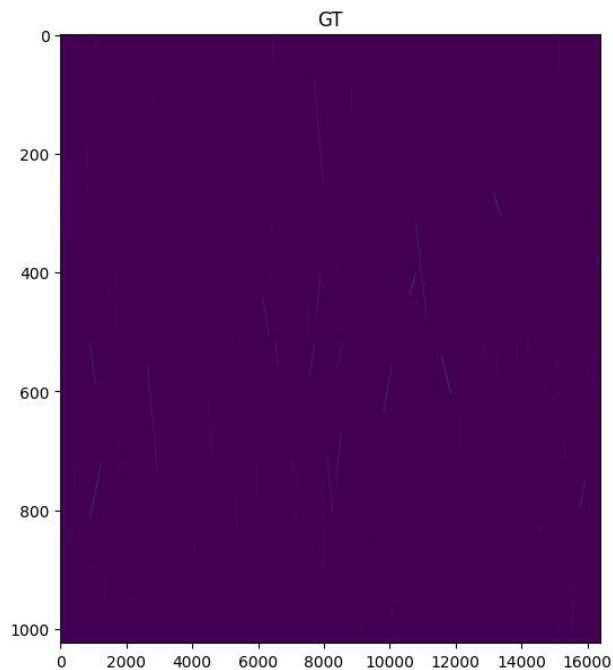
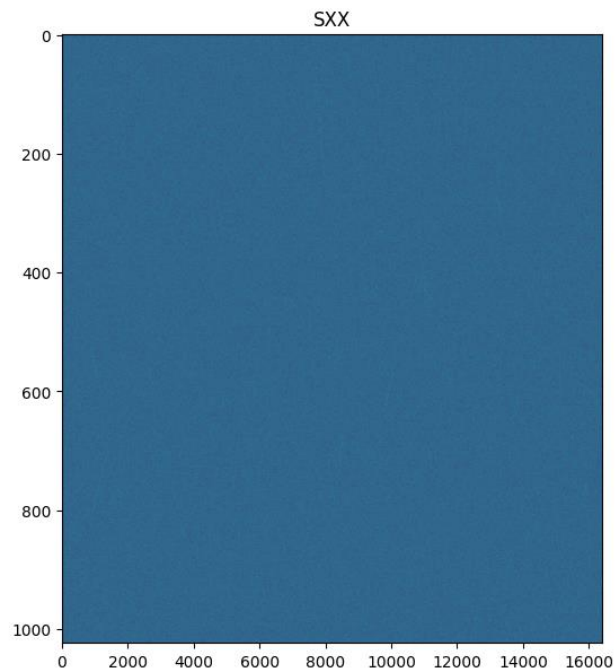
# Résultat overfit sur 1 image sur test à 8dB

sxxs\_targeted\_snr=8dB\_4.pt



# Résultat overfit sur 1 image sur test à 9dB

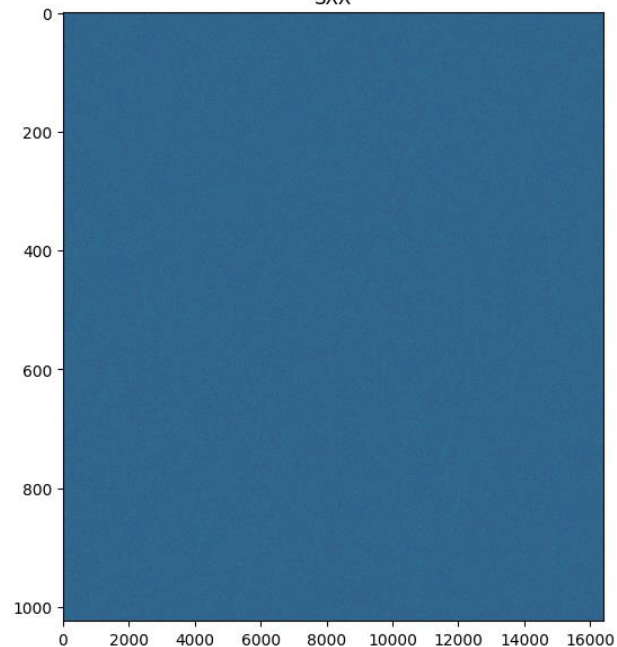
sxxs\_targeted\_snr=9dB\_13.pt



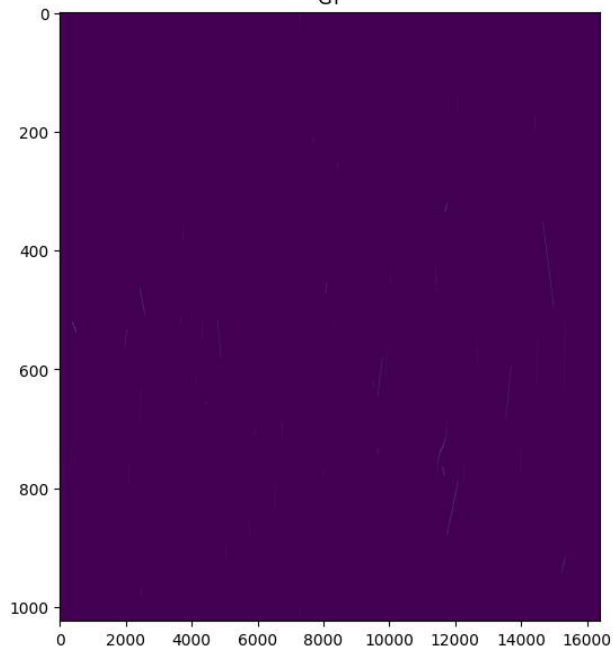
# Résultat overfit sur 1 image sur test à 10dB

sxxs\_targeted\_snr=10dB\_19.pt

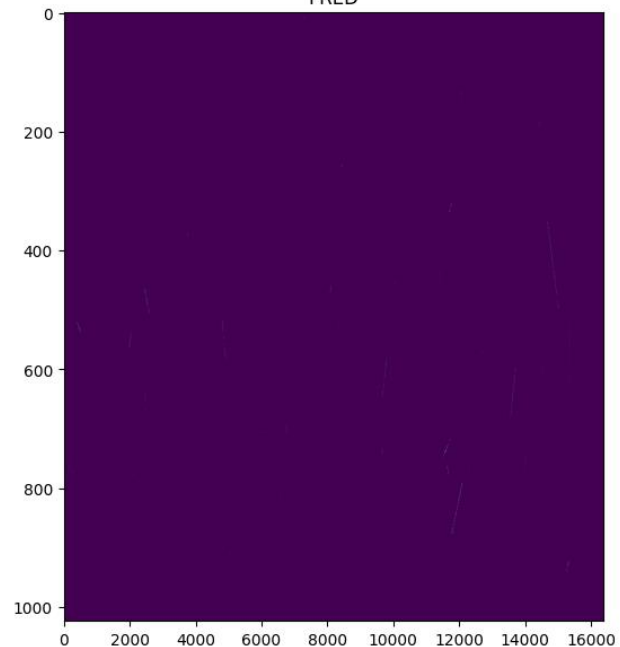
SXX



GT

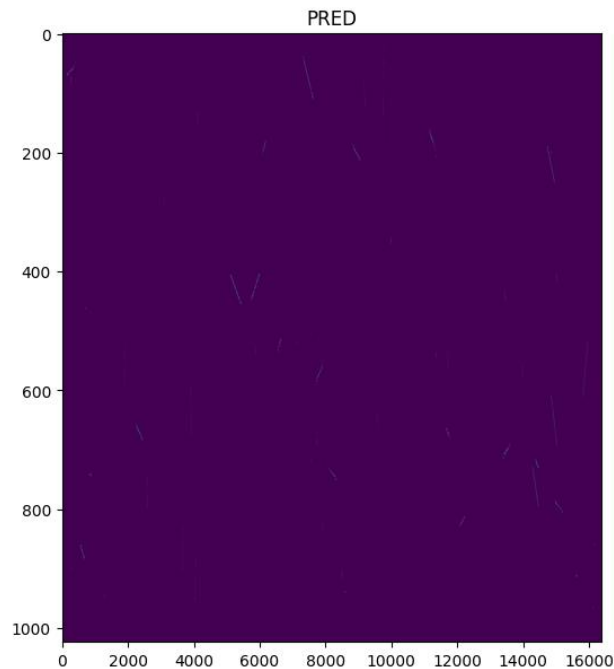
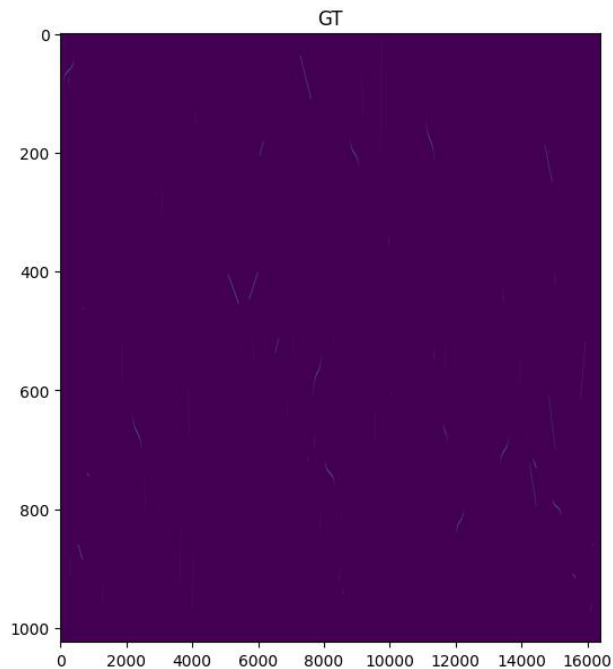
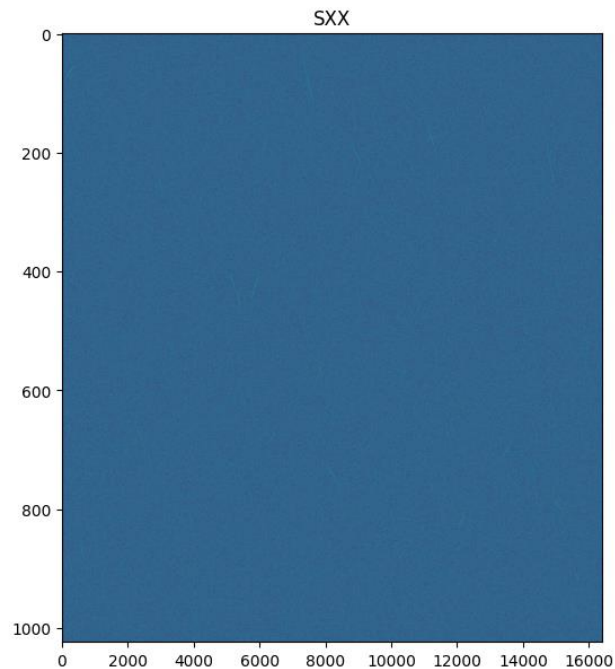


PRED



# Résultat overfit sur 1 image sur test à 11dB

sxxs\_targeted\_snr=11dB\_24.pt



# Architecture

64

131072

...

IA

Entrainé sur tous  
les npersegs

Mask 64

...

Mask 131072

IA / Resampling +  
Merging ?

Niq / 4096 bin temporel

Mask  
final

4096 bin freq

A définir selon  
RTR obtenu

# AVANTIX

MERCI